while excitations to mixed valence-Rydberg configurations are characterized by a moderate blue spectral shift. New information was obtained concerning the energetics of mol. ionization process in a dense fluid. The high n = 2-5 Rydberg states of MeI exhibit a large red shift at moderate (.rho. = 0-0.5 g cm-3) Ar densities. The ionization potential Eg and the effective Rydberg const. G for MeI in Ar decreased from G = 13.6 eV and Eg = 9.55 eV at .rho. = 9.08 eV and G .apprx.7.15 eV at .rho. = 0.5 g cm-3. Exptl. evidence was obtained for the identification of n = 2 mol. Wannier impurity states of MEI and of HCHO in liq. Ar. These spectroscopic data result in Eg .apprx.8.6 eV for MeI in liq. Ar and Eg .apprx.10.2 eV for HCHO in liq. Ar.

ST extravalence excitation perturbation argon

IT Ultraviolet and visible spectra
(extravalence excitation perturbation by helium-group gases in)

IT Helium-group gases, properties
RL: PRP (Properties)
(in mol. extravalence excitation perturbation)

IT Energy level excitation
(perturbation of, by rare-gas fluids)

IT 50-00-0, properties ***74-88-4*** , properties 75-15-0, properties
RL: PRP (Properties)
(argon perturbation of extravalence excitation in)

IT 7440-37-1, properties
RL: PRP (Properties)
(mol. extravalence excitation perturbation by liq.)

L7 ANSWER 50 OF 50 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1972:133818 CAPLUS

DN 76:133818

ED Entered STN: 12 May 1984

TI Relative and absolute Raman scattering cross sections in liquids

AU Colles, M. J.; Griffiths, J. E.

CS Bell Teleph. Lab., Inc., Murray Hill, NJ, USA

SO Journal of Chemical Physics (1972), 56(7), 3384-91
CODEN: JCPSA6; ISSN: 0021-9606

DT Journal

LA English

CC 73 (Spectra by Absorption, Emission, Reflection, or Magnetic Resonance, and Other Optical Properties)

AB Peak and total differential Raman scattering cross sections for several liqs., MeOH, EtOH, iso-PrOH, Me2CO, MeCCl3, MeI, cyclohexane, and PhBr, were detd. relative to the .nu.2(a1g) = 944 cm-1 line of C6D6 as an internal std. By using an abs. value for the peak differential cross section of this line and measured values of the radiant intensities and depolarization ratios of selected Raman lines in the above liqs., abs. values were obtained for peak differential scattering cross section and total differential scattering cross section. Results are expected to be accurate to .+-. 10 unless specified otherwise. Measurements were made by using a ***medium*** power continuous wave Ar ion ***laser*** operating at 4880 .ANG., a double monochromator and a photomultiplier (S-20 and S-11) detector.

ST Raman cross section liq

IT Raman spectra
(of org. liqs.)

IT 64-17-5, properties 67-56-1, properties 67-63-0, properties 67-64-1, properties 71-55-6 ***74-88-4*** 108-86-1 110-82-7, properties
RL: PRP (Properties)
(Raman spectrum of)

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L6        41978 S (OPTICAL OR LASER OR INFORMATION)(5A)(MED? OR DISK OR DISC)
L7           50 S L6 AND L4

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